Louisiana GLEs for Wetland Education

Grade 7 Life Science

Structure and Function in Living Systems

6. Compare the life cycles of a variety of organisms, including non-flowering and flowering plants, reptiles, birds, amphibians, and mammals (LS-M-A3)

Reproduction and Heredity

22. Give examples of the importance of selective breeding (e.g., domestic animals, livestock, horticulture) (LS-M-B3)

Populations and Ecosystems

23. Classify organisms based on structural characteristics, using a dichotomous key (LS-M-C1)
24. Analyze food webs to determine energy transfer among organisms (LS-M-C2)
26. Describe and compare the levels of organization of living things within an ecosystem (LS-M-C3)
27. Identify the various relationships among plants and animals (e.g., mutualistic, parasitic, producer/consumer) (LS-M-C4)
28. Differentiate between ecosystem components of habitat and niche (LS-M-C4)
29. Predict the impact changes in a species' population have on an ecosystem (LS-M-C4)

Adaptations of Organisms

30. Differentiate between structural and behavioral adaptations in a variety of organisms (LS-M-D1)
31. Describe and evaluate the impact of introducing nonnative species into an ecosystem (LS-M-D1)
32. Describe changes that can occur in various ecosystems and relate the changes to the ability of an organism to survive (LS-M-D2)
33. Illustrate how variations in individual organisms within a population determine the success of the population (LS-M-D2)
34. Explain how environmental factors impact survival of a population (LS-M-D2)

Science and the Environment

35. Identify resources humans derive from ecosystems (SE-M-A1)
36. Distinguish the essential roles played by biotic and abiotic components in various ecosystems (SE-M-A1)
37. Identify and describe the effects of limiting factors on a given population (SE-M-A2)
38. Evaluate the carrying capacity of an ecosystem (SE-M-A2)
39. Analyze the consequences of human activities on ecosystems (SE-M-A4)
40. Construct or draw food webs for various ecosystems (SE-M-A5)
43. Identify and analyze the environmental impact of humans' use of technology (e.g., energy production, agriculture, transportation, human habitation) (SE-M-A8)

Grade 8 Science GLEs: Earth and Space Science

Structure of Earth

15. Illustrate the role of organic processes in soil formation (ESS-M-A4)
19. Determine the results of constructive and destructive forces upon landform development with the aid of geologic maps of Louisiana (ESS-M-A7)
20. Describe how humans' actions and natural processes have modified coastal regions in Louisiana and other locations (ESS-M-A8)
21. Read and interpret topographic maps (ESS-M-A9)
22. Compare ocean floor topography to continental topography by using topographic maps (ESS-M-A9)
23. Explain the processes of evaporation, condensation, precipitation, infiltration, transpiration, and sublimation as they relate to the water cycle (ESS-M-A10)
24. Investigate and explain how given factors affect the rate of water movement in the water cycle (e.g., climate, type of rock, ground cover) (ESS-M-A10)
28. Use historical data to plot the movement of hurricanes and explain events or conditions that affected their paths (ESS-M-A12)

Earth in the Solar System

48. Communicate ways that information from space exploration and technological research have advanced understanding about Earth, the solar system, and the universe (ESS-M-C8)
49. Identify practical applications of technological advances resulting from space exploration and scientific and technological research (ESS-M-C8)

Science and the Environment

50. Illustrate possible point and non-point source contributions to pollution and natural or human-induced pathways of a pollutant in an ecosystem (SE-M-A3)
51. Analyze the consequences of human activities on global Earth systems (SE-M-A4)
52. Describe the relationship between plant type and soil compatibility (SE-M-A9)
53. Distinguish among several examples of erosion (e.g., stream bank, topsoil, coastal) and describe common preventive measures (SE-M-A10)

10th Grade Biology GLE's

Biological Evolution

18. Classify organisms from different kingdoms at several taxonomic levels, using a dichotomous key (LS-H-C4)
20. Analyze differences in life cycles of selected organisms in each of the kingdoms (LS-H-C6)

Interdependence of Organisms

24. Analyze food webs by predicting the impact of the loss or gain of an organism (LS-H-D2)
26. Analyze the dynamics of a population with and without limiting factors (LS-H-D3)
27. Analyze positive and negative effects of human actions on ecosystems (LS-H-D4) (SE-H-A7)

Environmental Science (USUALLY AN ELECTIVE)

Ecological Systems and Interactions

1. Describe the abiotic and biotic factors that distinguish Earth's major ecological systems (SE-H-A1)
4. Determine the effects of limiting factors on a population and describe the concept of carrying capacity (SE-H-A3)
5. Examine and discuss the major stages of succession, describing the generalized sequential order of the types of plant species (SE-H-A4)
8. Explain how species in an ecosystem interact and link in a complex web (SE-H-A7) (SE-H-A10)
10. Analyze the effect of an invasive species on the biodiversity within ecosystems (SE-H-A9)
12. Give examples and describe the effect of pollutants on selected populations (SE-H-A11)

Resources and Resource Management

18. Identify the factors that affect sustainable development (SE-H-B6)

Personal Choices and Responsible Actions

21. Analyze the effect of common social, economic, technological, and political considerations on environmental policy (SE-H-C3)
22. Analyze the risk-benefit ratio for selected environmental situations (SE-H-C4)
23. Describe the relationship between public support and the enforcement of environmental policies (SE-H-C5)

Environmental Awareness and Protection

27. Describe how accountability toward the environment affects sustainability (SE-H-D5)

Courtesy of ***Louisiana Wetland Education Coalition***. November 2004.